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Amendment

DMC
1-28-05

Amendments to the claims:

1. (Currently amended) A simulator for inserting simulated network frames onto a physical medium for delivery to a system under test over a network, comprising:

a bridge device having a network interface card for communicating with the network;

the bridge device including first and second interfaces; and

a frame generator, coupled to the bridge device via the first interface, for generating at least one simulated network frame from each of multiple virtual clients according to a specific network communications protocol; wherein:

the bridge device transfers, via the second interface, the at least one simulated network frame from each of the multiple virtual clients from the frame generator to the system under test via the network to simulate traffic of the multiple virtual clients;

for each of the multiple virtual clients, a unique identifier combined with bridging information is associated with the at least one simulated network frame; and

the bridge device receives one or more network frames from the system under test via the network in reply to the simulated network frames transferred thereto; and

the bridge device operates at a data link layer in a protocol stack.

2. (Previously Presented) The simulator of claim 1, wherein the frame generator is coupled to the bridge device via a channel connection.

3. (Previously Presented) The simulator of claim 1, wherein the frame generator is coupled to the bridge device via an Open System Adapter connection.

4. (Currently amended) A simulator enabling insertion of simulated network frames onto a physical medium for delivery to a system under test implementing one or more servers to achieve load balancing across a network, comprising:

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a plurality of bridge devices, each having a network interface card, and each connected to a respective one of the one or more servers employed for load balancing and enabled to communicate via its respective network interface card with the network; wherein:

one of the plurality of bridge devices is designated as a primary bridge device for passing a received broadcast message, without delay, to the respective one of the one or more servers, via its respective network interface card, and another of the plurality of bridge devices is designated as a secondary bridge device for passing the received broadcast message, with a predetermined delay, to the respective one of the one or more servers, via its respective network interface card; and

subsequent messages are sent only to the primary bridge device; and
the bridge devices operate at a data link layer in a protocol stack.

5. (Currently amended) A method for inserting simulated network frames onto a physical medium for delivery to a system under test, comprising:

connecting a bridge device with a network interface card having a unique identifier to a network;

receiving simulated network frames from a frame generator coupled to the bridge device;
configuring bridging information in the bridge device to include identifiers associated with the simulated network frames, the identifiers emulating identifiers of a plurality of client workstations; and

forwarding the simulated network frames onto the network via the network interface card;
wherein the bridge device operates at a data link layer in a protocol stack.

6. (Previously Presented) The method of claim 5, further comprising:

receiving network frames representing replies from a server designated for the plurality of client workstations based on the configured bridging information, wherein the received network frames have unique frame identifiers representing the plurality of client workstations.

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7. (Previously Presented) A method for inserting simulated network frames onto a physical medium for delivery to a system under test implementing one or more servers to achieve load balancing, comprising:

connecting a bridge device for each server in a load balancing system having a plurality of servers;

a primary of the bridge devices transmitting a client request immediately to a first server connected to the primary bridge device;

a secondary of the bridge devices transmitting the client request after a predetermined amount of time to a second server connected to the secondary bridge device; and

transmitting subsequent client requests to the primary bridge device.

8. (Currently amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method for inserting network frames onto a physical medium for delivery to a system under test, the method comprising:

connecting a bridge device with a network interface card having a unique identifier to a network;

receiving simulated network frames from a frame generator coupled to the bridge device;

configuring bridging information in the bridge device to include identifiers associated with the simulated network frames, the identifiers emulating identifiers of a plurality of client workstations; and

forwarding the received simulated network frames onto the network via the network interface card;

wherein the bridge device operates at a data link layer in a protocol stack.

9. (Previously Presented) The program storage device of claim 8, wherein the method further includes:

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receiving network frames representing replies from a server designated for the plurality of client workstations based on the configured bridging information, wherein the received network frames have unique frame identifiers representing the plurality of client workstations.

Cancel claims 10-13.

14. (Previously Presented) The simulator of claim 1, wherein:
for each of the multiple virtual clients, the unique identifier comprises a data link layer identifier.
15. (Previously Presented) The method of claim 5, wherein:
the identifiers associated with the simulated network frames comprises data link layer identifiers.
16. (Previously Presented) The program storage device of claim 8, wherein:
the identifiers associated with the simulated network frames comprises data link layer identifiers.